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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of

Federal-State Joint Board on
Universal Service

CC Docket No.
96-45

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**COMMENTS OF THE AMERICAN TELEMEDICINE ASSOCIATION
ON THE NOTICE OF PROPOSED RULEMAKING
AND ORDER ESTABLISHING JOINT BOARD**

The American Telemedicine Association (ATA) is pleased to provide these comments to the Federal Communications Commission regarding the proposed rulemaking on universal service, CC Docket No. 96-45.

INTRODUCTION

ATA is the only national non-profit association promoting telemedicine. The association's membership is composed of the nation's leading professionals and organizations actively engaged in the field of telemedicine. ATA's voting membership includes individuals from medicine, academia, and the health care, technology, and telecommunications industries.

ATA promotes professional, ethical and equitable improvement in health care delivery through the application of telecommunications technology. The association implements these objectives by:

- ♦ **Promoting** telemedical research and education
- ♦ **Assisting** in the development of telemedical policy and standards
- ♦ **Educating** government and industry leaders about telemedicine

as an essential element in the delivery of modern medical care

- ♦ **Providing** educational materials to public and professional organizations
- ♦ **Interacting** with health care systems world-wide
- ♦ **Serving** as a clearinghouse for telemedical information and services
- ♦ **Supporting** local health care system initiatives in telemedicine, especially in medically underserved areas

Our comments contained here are directed at the current Notice of Proposed Rulemaking and do not cover the entire set of actions the FCC could consider in order to eliminate existing barriers and promote telemedicine. Our comments are divided into two areas. First, three overall principles are provided regarding telecommunications policy and telemedicine. Second, specific recommendations are provided regarding the rulemaking proceeding now before the Commission.

GENERAL PRINCIPLES FOR TELECOMMUNICATIONS POLICY AND TELEMEDICINE

The goal of the American Telemedicine Association is to help all people gain access to health care where they need it, when they need it, with an economy of cost, and with consistency of quality. The promotion and regulation of telecommunications services are a critical element in meeting this goal but must take into

consideration the larger context in which telemedicine is moving forward. An important scripture in medicine is "first do no harm". The same should be true for federal or state governments as they look into ways to help promote the deployment of telemedicine in the future.

Any policy action taken by the FCC to promote telemedicine should refrain from requiring the consumer to use a particular telecommunications provider or modality for the delivery of telecommunications. The rapidly changing nature of telecommunications and telemedical technology and the newly competitive character of the telecommunications industry makes it irrelevant to describe the future telecommunications needs of health providers in terms of only existing wireline delivery nor for specific telephone, cable, or wireless networks. The specific type of telecommunications services needed for telemedicine varies tremendously by medical specialty and the current state of technology being deployed.

Any telecommunications policy to promote telemedicine should be considered in a larger context of the infrastructure promoting the development of the entire community. To be most effective in providing medical and related health services to the point of need, telemedicine should be integrated into a telecommunications infrastructure that is a shared community resource for health care, education, commerce, banking, shopping, and entertainment. This takes advantage of economies of scale and promotes integration of different applications as part of a larger community-wide telecommunications network.

Finally, it is important to recognize that telemedicine, like

telecommunications, is a rapidly changing field. Policy actions affecting telemedicine should recognize this by building in a periodic review and redirection of established policy. Telemedicine is becoming of great interest to investment capitalists and the health and communications industries. We expect this interest will yield substantially increased investments in research and development leading to rapid progress in the design and delivery of medical care over the next decade with developments that are unforeseen today.

IMPLEMENTING PROVISIONS OF THE TELECOMMUNICATIONS REFORM ACT

The Notice of Proposed Rulemaking refers to requirements of the Act that are designed to promote advanced telecommunications services for providers of health care for rural areas. A host of comments are requested related to the FCC policies supporting this legislation. ATA provides the following comments to various subsections in the Proposed Rulemaking under section IV.C. dealing with Health Care Providers:

IV.C.1. What Services to Support

1. Comment was requested by the Commission on defining specific telecommunications services and functionalities necessary for the provision of rural health services. Also, commenters were asked if eligible services could be limited to outgoing services only.

Physicians and allied health providers currently use practically all forms of telecommunications services in providing health care from plain old telephone service to advanced T1 connections through

ATM switches. The level of telecommunications service that is appropriate depends on the type of medical care required. Providing follow-up consultations between physicians or between patient and health care provider may only require a simple conversation on the phone, or use of the internet. However, direct real-time examination of a patient in an emergency situation may require high quality interactive video with parallel high speed digital imaging. Also, the actual communications link may originate at either end and, therefore, include both incoming and outgoing calls.

ATA believes that the Commission should consider two approaches to ensuring appropriate telecommunications services are available for rural health care. First, the FCC should take steps to ensure that all rural health providers have local ACCESS to certain core communication services that are not now available in many rural areas. This requires further build-out of the rural telecommunications infrastructure. Second, special urban-comparable rates for providers of rural health care should be applied to all levels of available telecommunications services.

Access to Core Services

We suggest that the Commission consider, within this Rulemaking, ways to guarantee local access to two core services for health care providers serving rural residents: access to the internet and the ability to send and receive high quality digital images. Accessing these two telecommunications services are fundamental to enabling all health providers, regardless of medical specialty or level of training, to render quality health care to rural populations. In

some remote areas, this may require special incentives to improve the existing telecommunications infrastructure.

The internet allows isolated health care practitioners access to a large and growing library of information about medical care and provides communication links with colleagues. This is a critical link for any health care provider serving rural residents. Unfortunately, in many rural communities, access to the internet requires a toll call that adds considerable expense to the cost of accessing internet services. The Commission should initiate an aggressive program, including use of universal service funds where required, to ensure that all health care providers have local exchange access to one or more providers of internet services.

Practically all health care providers will also benefit from local access to telecommunications transmission facilities that provides timely "store-forward" transmission of digitized medical images. The ability to transmit and receive high quality medical images in remote areas can be crucial to the proper diagnosis and treatment of patients. The Commission should take steps to ensure that all health care providers be able to access local telecommunications services that allow them to receive and send still images at relatively high speed transmission rates.

An example of this need might be helpful. In emergency situations, medical providers serving rural residents will need the ability to send large medical files for analysis, diagnosis and response within a very short time (15 to 20 minutes). A typical information package for a medical case might include:

1. A file containing two x-rays using the standard 2k by 2k by 12

bit image would require approximately 8 Mbytes of data each.

- 2 A digital audio and video clip that could contain roughly 500 Kbytes to 2 Mbytes of data.
3. Two still frame images with a resolution of 1024 by 1024 by 8 bits requiring roughly another 1 Mbyte of data each.
4. Additional patient records and accompanying administrative data containing critical information needed for diagnosis requiring 1 Mbyte of data.

This could amount to a 20 to 25 Mbyte file. Transmitting this size of file over regular phone lines using available modems could take anywhere from 15 to 30 minutes. Even when the files are compressed such transmissions would take enormous amounts of time.

The current telephone network is technically capable of a 56 Kbytes per second speed for transmission of signals but 28.8 Kbytes is all that is available using currently available modems. A speed of at least 112 Kbytes or better should be available for all health care providers serving rural patients. Telecommunication services providing transmission rates at this speed or better is commonly available throughout almost all metropolitan areas today. We recognize that this service may be available through a variety of different types of providers and technologies in the future (ISDN, cable modems, ADSL, wireless, etc.). ATA recommends that the Commission should adopt appropriate policies that assure any provider of health care can get access to digital transmission services through competing providers where possible, at speeds of 112 Kbytes per second.

Providing Comparable Rates

The Commission is struggling to determine which telecommunications services should be made available to health care providers serving rural areas at "rates that are reasonably comparable to rates charged for similar services in urban areas in that state"¹. We feel that telecommunications services eligible for discounts should include the full array of choices that are available to eligible health care providers and not be limited to outgoing or incoming calls. ISDN happens to be a popular choice of service for many involved in telemedicine at the moment. However, limiting discounted services to only ISDN service would artificially limit the options of the health care provider to one level of service for use in delivering medical care when services above or below ISDN may be a better choice. Decisions about the appropriate bandwidth or level of service to be used in delivering proper medical care, just as the choice for appropriate intervention strategies, should remain in the hands of the health care community.

2. The Commission asked for comment on the "technical feasibility and economic reasonableness" of providing access to high speed capabilities including ATM and ISDN technologies for rural health care.

As stated above, the FCC policy implementing this rulemaking should be neutral on eligible telecommunications services. The Commission should not place itself in the position of deciding on appropriate bandwidth for every application of medical care. The Commission should adopt a policy to allow eligible providers access to the

¹ 1996 Act sec. 254 (h) (1) (A).

full range of telecommunications services that are technically available to any other local customer but at rates that are comparable to urban areas. Further, we encourage the Commission to promote further development of local communication networks in rural areas in order to provide access to advanced telecommunications services throughout the nation.

In seeking to identify comparable rates the Commission should also be aware that many high speed lines are charged by the telephone companies on the basis of mileage from the local exchange. For rural facilities this greatly expands the cost of accessing such services. Providing comparable rates between urban and rural areas should include provisions eliminating or adjusting mileage charges.

IV.C.2. How to Implement

1. Defining areas to be used in computing urban and rural comparability for rates is another area of concern in the Notice. The OMB classifications of metropolitan and non-metropolitan areas appears to be the most accepted system currently in place and, since it is based on county level classifications, offers the best foundation for constructing other data sets. It is reasonable for the FCC to develop guidelines for the telecommunications carriers to follow in computing appropriate price differentials.

2. The Commission also seeks comment on using an urban-rural classification system for defining rural health care providers. This is a far more difficult area for consideration as it is intended to be the determinant of who is an eligible recipient of subsidized telecommunications services. The language in the Act refers to rural health care providers not by rural or urban

location of the **institution** but by location of the **patients it serves**. It should be pointed out that health care providers throughout the country do not limit care to residents by their place of residency. Although private practice physicians generally have a patient base limited to a localized area, tertiary care hospitals in the most urbanized regions in a state will have patients from the most rural. If telemedicine is successful, this characteristic will be greatly expanded in the years ahead as the promise of telemedicine is making high quality health care available to any person regardless of geographic location or socioeconomic status.

Still, it is important that limitations are made in order to allocate limited resources. Therefore, we suggest that discounted telecommunications services be available for health care providers located in rural areas as defined in the OMB classification and secondary and tertiary care facilities located in other parts of the state that have telecommunications links (for the provision of health care) with rural health institutions. This could be enforced by requiring the health care provider to furnish a written certification as to the use of any telecommunications service receiving subsidized rates.

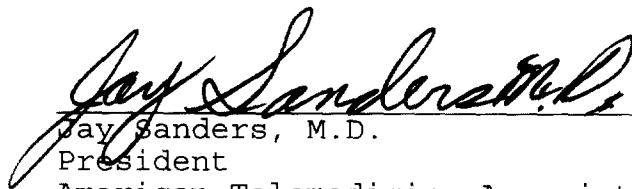
It is disturbing that the definition of eligibility for discounted services does not specifically name individual health care practitioners serving rural residents through private practice. In the most remote areas of this country these individuals are often the only available source of medical care for many miles and are among the most in need of access to advanced medical care through the use of telecommunications technologies. We hope that the Commission allows enough flexibility in its final rulemaking to

allow these individuals to participate in the benefits offered under this program.

IV.C.3. Who is Eligible For Support

1. The Notice requests comments on any potential differences between the health and educational parts of this section in the approach to recognizing and paying for services provided by telecommunications carriers.

We recognize significant distinctions in the language of the Act between the provisions of telecommunications services for health and educational purposes. However, we believe that there is little reason for any difference in the treatment of telecommunications carriers between the two sections of the Act. A system for direct compensation for health-related telecommunications services to the telecommunications company providing the service is appropriate as it will reduce the administrative burdens of the local health care provider. However, to the extent feasible, we believe that the choice of telecommunications carrier remain the choice of the end user of services. Therefore, we would ask the FCC to consider ways to implement this section through use of end user credits or other systems that will allow the rural health provider to take advantage of new choices in providing telecommunications services from cable, wireless, and other forms of communications.


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